

WHAT IS CLAIMED IS:

1. An ink set comprising at least two black ink compositions each containing a carbon black and a complementary colorant,

wherein the at least two black ink compositions have different carbon black contents from one another, and

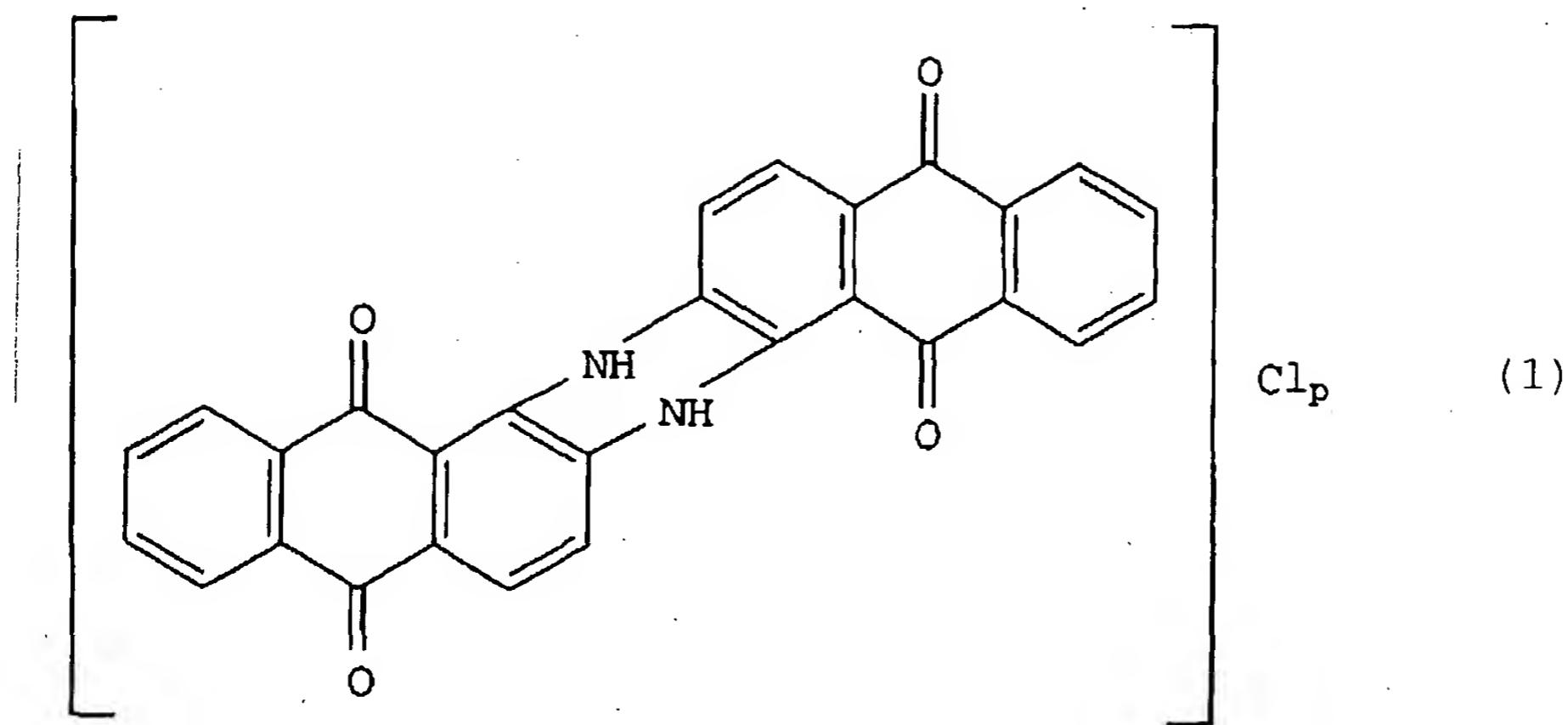
wherein the complementary colorants of at least two of the black ink compositions are different from one another.

2. The ink set according to claim 1, wherein the ink set comprises the following two black ink compositions:

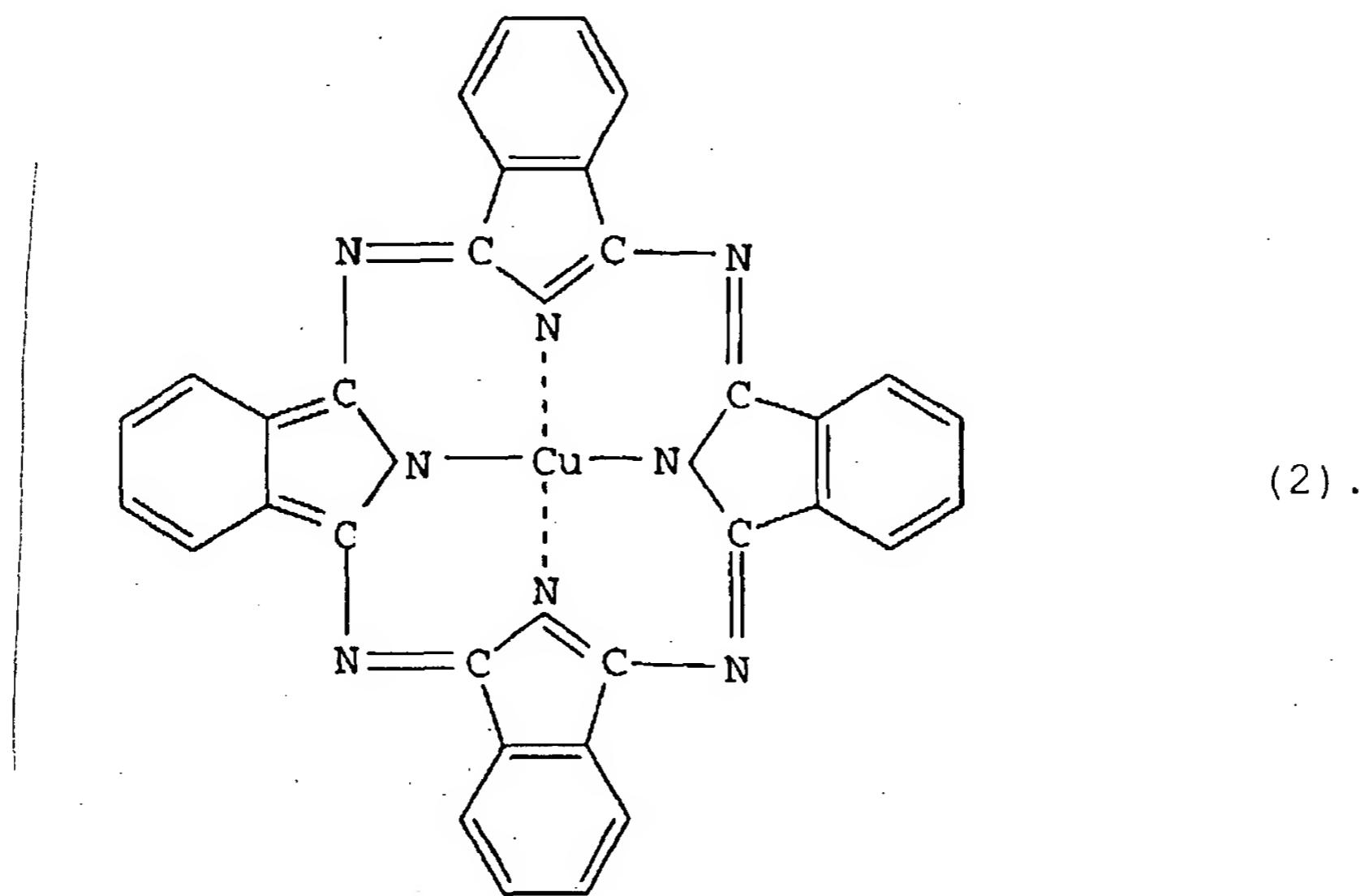
a light black ink composition having a low carbon black content ranging from 0.01 to 1% by weight based on the total weight of the light black ink composition; and

a dark black ink composition having a high carbon black content ranging from 1 to 10% by weight based on the total weight of the dark black ink composition.

3. The ink set according to claim 2, wherein the complementary colorant of the light black ink composition is a pigment represented by general formula (1):



wherein p represents an integer of 0 to 3, and the complementary colorant of the dark black ink composition is a pigment represented by formula (2):



4. The ink set according to claim 3, wherein the light black ink composition contains the pigment represented by the above general formula (1) in an amount of 0.01 to 0.5% by weight based on the total weight of the light black ink composition, and the dark black ink composition contains the pigment represented by the above formula (2) in an amount of 0.1 to 5% by weight based on the total weight of the dark black ink composition.

5. The ink set according to claim 1, wherein the ink set comprises at least three black ink compositions including:

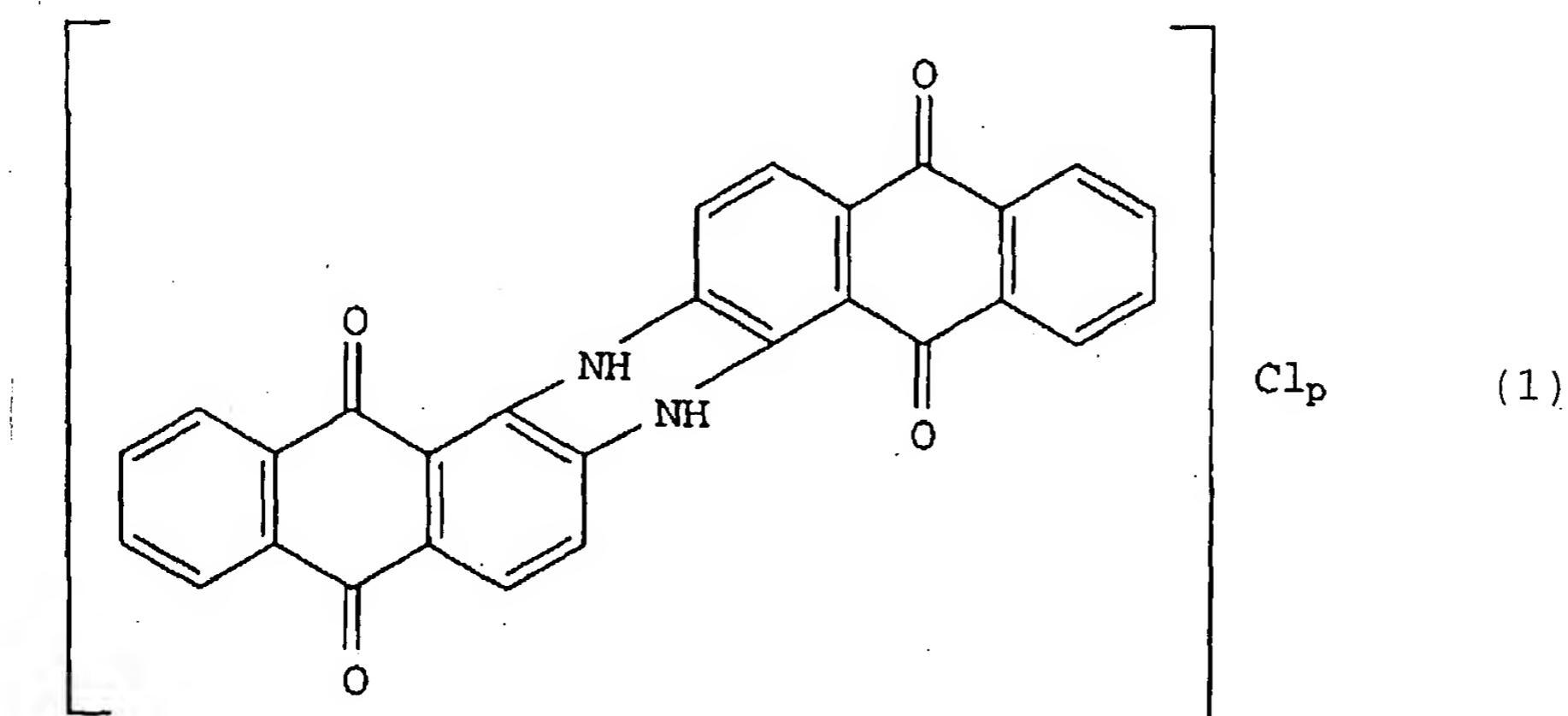
a light black ink composition having the lowest carbon black content ranging from 0.01 to 4% by weight based on the total weight of the light black ink composition;

a medium black ink composition for medium gradation having a medium carbon black content ranging from 0.4 to 1.5% by weight based on the total weight of the medium black ink composition; and

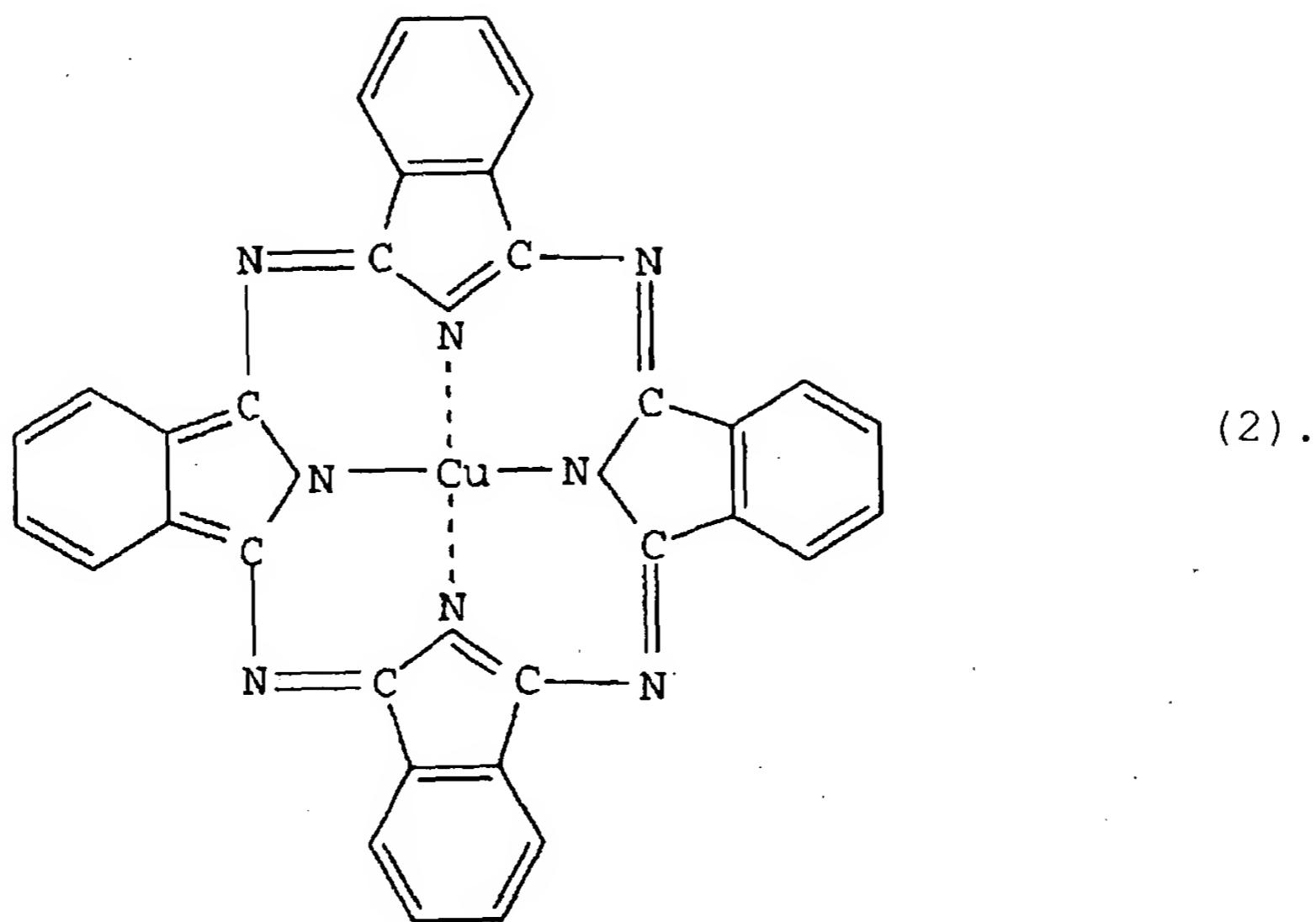
a dark black ink composition having the highest carbon black content ranging from 1.5 to 10% by weight based on the total weight of the dark black ink composition.

6. The ink set according to claim 5, wherein the medium black ink composition for medium gradation comprises at least one of a first medium black ink composition having a carbon black content of 0.4 to 1% by weight and a second medium black ink composition having a carbon black content of 1 to 1.5% by weight.

7. The ink set according to claim 5, wherein the complementary colorant of the light black ink composition is a pigment represented by general formula (1):

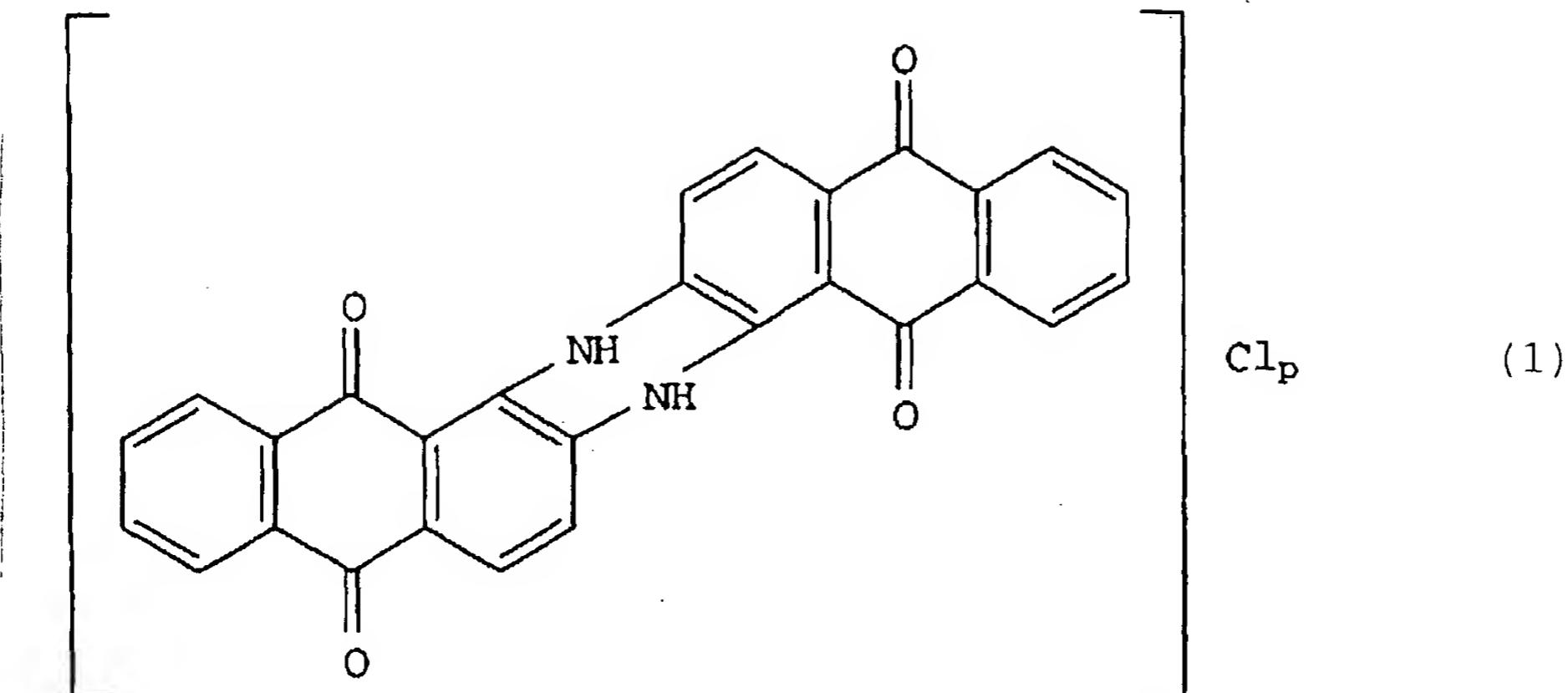


wherein p represents an integer of 0 to 3, and the complementary colorant of the dark black ink composition is a pigment represented by formula (2):



8. The ink set according to claim 7, wherein the light black ink composition contains the pigment represented by the above general formula (1) in an amount of 0.01 to 0.3% by weight based on the total weight of the light black ink composition, and the dark black ink composition contains the pigment represented by the above formula (2) in an amount of 0.1 to 5% by weight based on the total weight of the dark black ink composition.

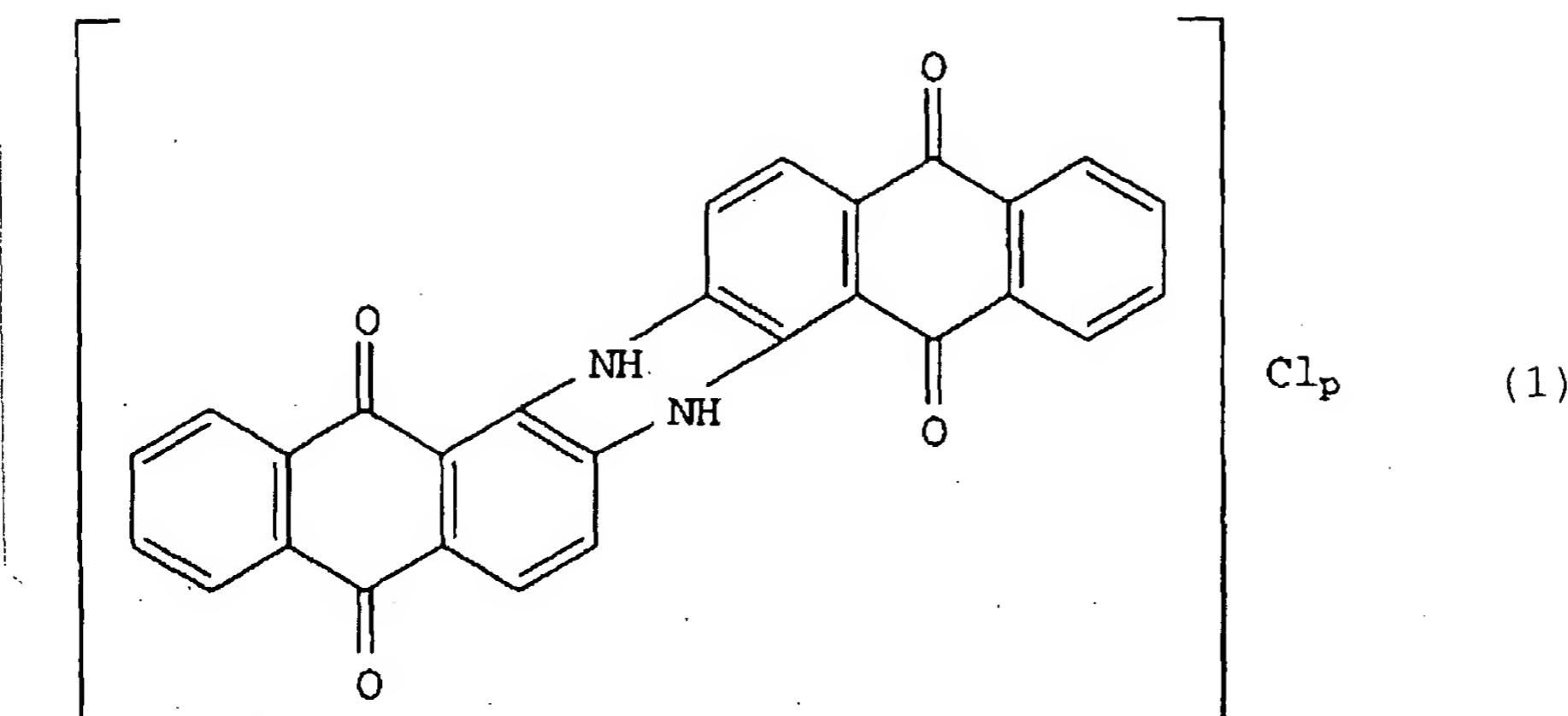
9. The ink set according to claim 6, wherein the first medium black ink composition having a carbon black content of 0.4 to 1% by weight contains a pigment represented by general formula (1):



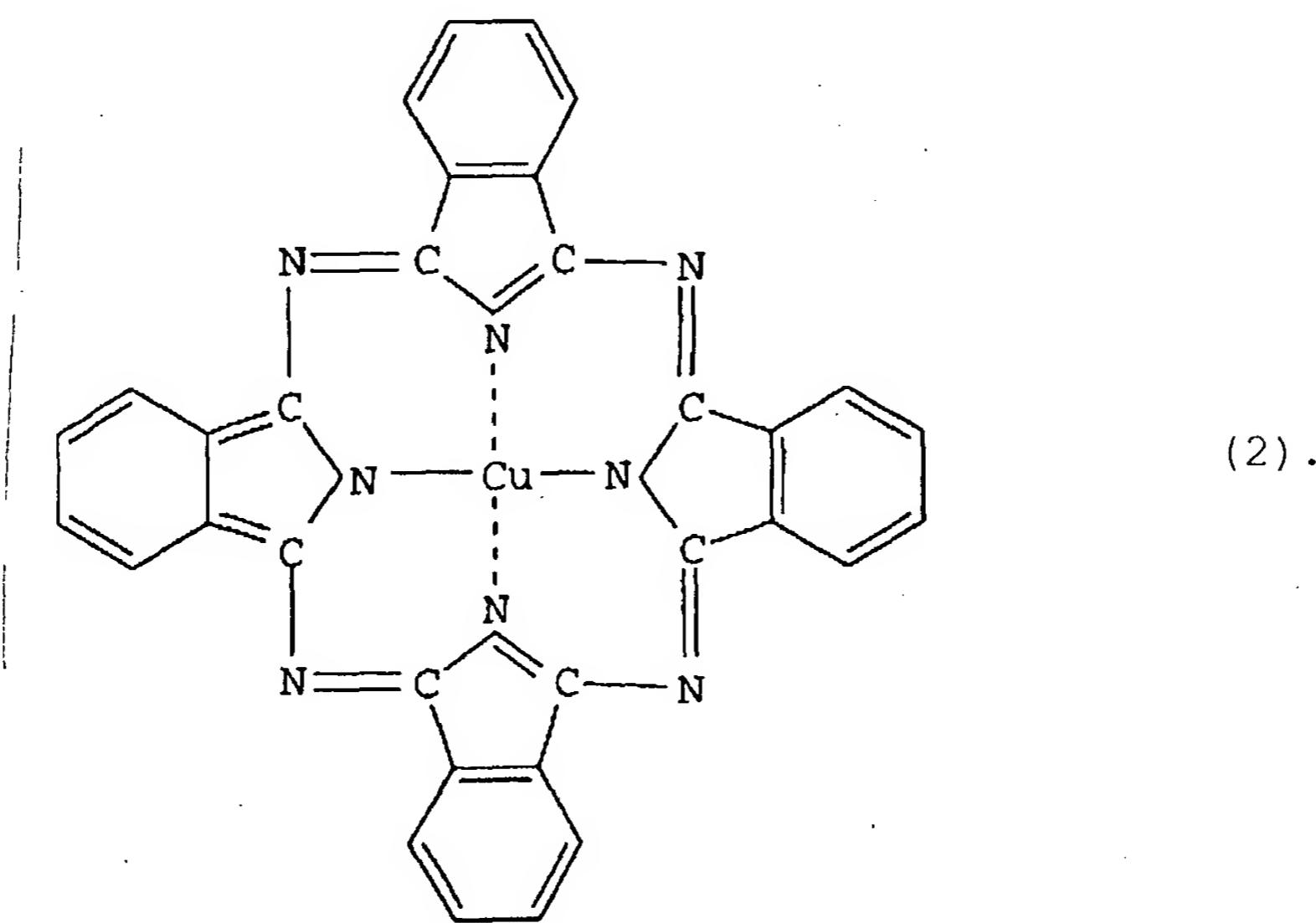
wherein p represents an integer of 0 to 3.

10. The ink set according to claim 9, wherein the first medium black ink composition having a carbon black content of 0.4 to 1% by weight contains the pigment represented by the above general formula (1) in an amount of 0.01 to 0.3% by weight based on the total weight of the first medium black ink composition.

11. The ink set according to claim 6, wherein the second medium black ink composition having a carbon black content of 1 to 1.5% by weight contains a pigment represented by general formula (1):



wherein p represents an integer of 0 to 3, and/or a pigment represented by formula (2):



12. The ink set according to claim 11, wherein the second medium black ink composition having a carbon

black content of 1 to 1.5% by weight contains the pigment represented by the above general formula (1) in an amount of 0.01 to 0.3% by weight and the pigment represented by the above formula (2) in an amount of 0.1 to 5% by weight based on the total weight of the second medium black ink composition.

13. The ink set according to claim 1, which comprises aqueous ink compositions.

14. The ink set according to claim 1, wherein at least one of the black ink compositions contains at least one surfactant selected from the group consisting of an anionic surfactant, a nonionic surfactant, and an amphoteric surfactant.

15. The ink set according to claim 14, wherein the nonionic surfactant is an acetylene glycol-based surfactant.

16. The ink set according to claim 1, wherein at least one black ink composition further contains a water-soluble organic solvent.

17. A recording method comprising:

ejecting a liquid droplet of an ink composition so that the liquid droplet is attached to a recording medium to effect printing, wherein an ink set according to any one of claims 1 to 16 is used.

18. Recorded matter which is printed in accordance with the recording method according to claim 17.

19. An ink-jet recording apparatus comprising an electrostrictive element capable of oscillating in accordance with an electrical signal and being arranged such that the oscillation of the electrostrictive element causes ejection of the ink compositions of the ink set according to any one of claims 1 to 16.